UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/974,865	10/12/2001	Shin Chin Lee	3626-0226P	7392

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EXAMINER
ZHOU, TING

ART UNIT	PAPER NUMBER
2173	

DATE MAILED: 12/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.
09/974,865</td><td>Applicant(s)
LEE, SHIN CHIN</td></tr>
<tr><td>Examiner
Ting Zhou</td><td>Art Unit
2173</td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 August 2004*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
    closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

    1.☒ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
        application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   The amendment filed on 3 August have been received and entered. Claims 1-17 as

amended are pending in the application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United
States before the invention thereof by the applicant for patent, or on an international application by another who
has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention
thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999

(AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA

35 U.S.C. 102(e)).

2.   Claims 1-4, 7-9 and 12-15 are rejected under 35 U.S.C. 102(e) as being anticipated by

Trower, II et al. U.S. Patent 6,121,981.

Referring to claims 1, 7 and 12, Trower, II et al. teach a method, module and computer

readable storage medium comprising loading a plurality of frames (column 5, line 22, column 6,

lines 40-43 and further shown in Figure 3), each of the plurality of frames comprising at least

one object having a non-rectangle shape when outputting to a display (frames enclose an

arbitrary-shaped animation) (column 5, lines 32-34); obtaining an invalidated rectangle in a

specific frame among the plurality of frames, the invalidated rectangle representing a rectangular

area whose contents have changes between the specific frame and its immediate previous frame

(bounding region used to play a sequence of animation; the bounding rectangles define the area

occupied by the non-transparent pixels of each frame and since the non-transparent pixels of

each frame of an animation changes, the contents of the bounding rectangle region changes from

frame to frame) (column 5, lines 31-55 and column 10, lines 15-41); redrawing the graphic

contents in the invalidated rectangle; outputting the specific frame to a display; setting the next

frame of the specific frame as the specific frame; and repeating the above steps to generate an

arbitrary-shaped dynamic user interface (column 2, lines 25 – column 3, line 10, column 5, lines

20-42 and column 27, lines 28-56). This is further shown in Figures 2-4 and 7.

Referring to claims 2, 8 and 13, Trower, II et al. teach computing a boundary of the non-

rectangular object after loading a plurality of frames (rectangular area enclosing the arbitrary-

shaped animation; compute bounding region and window region for the bounding region after

loading the bitmaps for the current frame of the animation) (column 5, lines 20-34).

Referring to claims 3 and 14, Trower, II et al. teach establishing an invalidated rectangle

list after obtaining an invalidated rectangle, wherein the invalidated rectangle of the specific

frame is obtained from the invalidated rectangle list (sequence list of animation frames;

furthermore, after the regionizer has retrieved the bounding region, it is saved to a region data

cache, which has a queue of bounding regions, for future use) (column 3, lines 3-5, column 8,

lines 53-65 and Figure 10, lines 62-65; Figure 5).

Referring to claims 4, 9 and 15, Trower, II et al. teach cutting the invalidated rectangle

into a plurality of line segments (scanning the bitmap one line at a time), scanning each of the

line segments for non-transparent pixels, combining the non-transparent pixels in the line

segments and refreshing the pixel contents of the invalidated rectangle using the combined result

from the non-transparent pixels of the line segments (column 10, lines 27-41). This if further

recited in column 27, lines 64-67 and column 28, lines 1-6 and shown in Figure 7.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   Claims 5-6, 10-11 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Trower, II et al. U.S. Patent 6,121,981.

Referring to claims 5, 10-11 and 16-17, Trower, II et al. teach the use of bitmaps to

represent graphic objects (column 5, lines 20-41). Although Trower, II et al. do not explicitly

teach the graphic objects being vector graphic and Flash objects, it would have been obvious

that the graphics of the system can be represented by a plurality of compression formats, such as

bitmaps, vector graphic and Flash objects. The examiner takes Official Notice of this teaching.

It would have been obvious to one of ordinary skill in the art to represent the graphic objects

taught by Trower, II et al. in other type of formats such as vector graphic and Flash objects in

order to develop rich content that is interactive, versatile and supported by a majority of system

machines.

Referring to claim 6, Trower, II et al. teach a method comprising loading a plurality of

frames (column 5, line 22, column 6, lines 40-43 and further shown in Figure 3), each of the

plurality of frames comprising at least one object having a non-rectangle shape when outputting

to a display (frames enclose an arbitrary-shaped animation) (column 5, lines 32-34); obtaining an

invalidated rectangle in a specific frame among the plurality of frames, the invalidated rectangle

representing a rectangular area whose contents have changes between the specific frame and its

immediate previous frame (bounding region used to play a sequence of animation; the bounding

rectangles defines the area occupied by the non-transparent pixels of each frame and since the

animation and therefore, the non-transparent pixels of each frame of an animation changes, the

contents of the bound rectangle region changes from frame to frame) (column 5, lines 31-55 and

column 10, lines 15-41); redrawing the graphic contents in the invalidated rectangle; outputting

the specific frame to a display; setting the next frame of the specific frame as the specific frame;

and repeating the above steps to generate an arbitrary-shaped dynamic user interface (column 2,

lines 25 – column 3, line 10, column 5, lines 20-42 and column 27, lines 28-56). This is further

shown in Figures 2-4 and 7. Specifically, Trower, II et al. further teach the use of bitmaps to

represent graphic objects (Trower, II et al.: column 5, lines 20-41). Although Trower, II et al. do

not explicitly teach the graphic objects being Flash objects, it would have been obvious that the

graphics of the system can be represented by a plurality of compression formats, such as

bitmaps, vector graphic and Flash objects. The examiner takes Official Notice of this teaching.

It would have been obvious to one of ordinary skill in the art to represent the graphic objects

taught by Trower, II et al. in other type of formats such as vector graphic and Flash objects in

order to develop rich content that is interactive, versatile and supported by a majority of system

machines.

Response to Arguments

4.   Applicant's arguments filed on 3 August 2004 have been fully considered but they are

not persuasive.

5.   Applicant asserts that the bounding region of Trower II et al. is not equivalent to the

invalidated rectangle of the present invention. The examiner respectfully disagrees. The

invalidated rectangle, as recited by the limitations of the independent claims, represents a

rectangular area whose contents have changes between the specific frame and its immediate

previous frame. Trower II et al. teach the bounding rectangle region of each frame represents the

non-transparent pixels of that frame of animation, as recited in column 5, line 32 – column 6, line

25. Therefore, the contents of the bounding rectangle regions contains certain pixels of one of

animation (column 9, line 47 – column 10, line 41); since the pixels of each frame of animation

changes, the contents of the bounding rectangle region changes from frame to frame; in other

words, the pixels of the current frame of animation are different than the pixels of a previous

frame of animation. Although the bounding region may contain the area of the whole frame, as

contended by the applicant, the area of the whole frame within the bounding region changes from

frame to since each frame of animation is different than the previous frame and therefore, the

contents of the bounding region, be it the area of the whole frame as it may, still changes from

frame to frame. Furthermore, the applicant asserts that the bounding region occupies more bytes

than that in the invalidated rectangle of the invention and that the method and system of Trower

II et al. waste a lot of system resources. However, the limitations of the recited claims do not

refer to the amount of bytes occupied by the invalidated rectangle nor the amount of system

resources used. Although the claims are interpreted in light of the specification, limitations from

the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d

1057 (Fed. Cir. 1993).

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

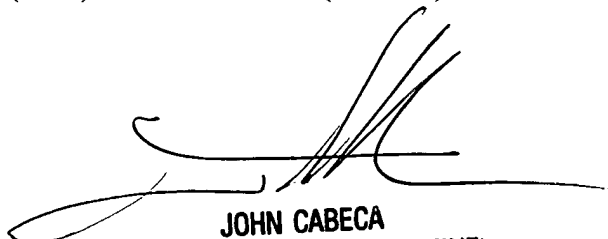than SIX MONTHS from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ting Zhou whose telephone number is (571) 272-4058. The examiner can normally be reached on Monday - Friday 8:30 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached at (571) 272-4048. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-4058.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

29 November 2004

JOHN CABECA
SUPERVISORY PATENT EXAMINE
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